What is claimed is:

1. A semiconductor device comprising:

a pixel portion and a driver circuit for the pixel portion on a same substrate;

a first n-channel thin film transistor being formed in the pixel portion and including:

a first active layer;

at least a first LDD region in the first active layer;

a first gate insulating film being formed between the first active layer and the substrate;

a first gate electrode being formed between the first gate insulating film and the substrate;

a second n-channel thin film transistor being formed in the driver circuit and including:

a second active layer;

at least a second LDD region in the second active layer;

a second gate insulating film being formed between the second active layer and the substrate;

a second gate electrode being formed between the second gate insulating film and the substrate,

wherein the first LDD region of the first n-channel thin film transistor in the pixel portion is not overlapped with the first gate electrode,

wherein the second LDD region of the second n-channel thin film transistor in the driver circuit is overlapped with the second gate electrode,

wherein the first LDD region includes an n-type impurity at a first concentration while the second LDD region includes the n-type impurity at a second concentration,

wherein the second concentration is higher than the first concentration.

2. A device according to claim 1,

wherein the second concentration is two or more times higher than the first concentration while the second concentration does not exceed ten times the first concentration.

3. A device according to claim 1 further comprising:

an organic resin film being formed on at least the first n-channel thin film transistor in the pixel portion;

a light shielding film being formed on the organic resin film;

a dielectric film being formed in contact with the light shielding film;

a pixel electrode being connected to the first n-channel thin film transistor in the pixel portion, a portion of said pixel electrode being overlapped with the light shielding film;

wherein a capacitor is formed of the light shielding film, a dielectric film and the portion of the pixel electrode.

4. A device according to claim 3,

wherein the light shielding film comprises at least a material selected from the group consisting of aluminum, tantalum and titanium, and

wherein the dielectric film comprises an oxide of the material.

5. A device according to claim 1,

wherein the semiconductor device includes one selected from the group consisting of a cellular phone, a video camera, a mobile computer, a goggle type display, a projector, a portable electronic book, a digital camera, a navigation system for vehicles, and a personal computer.

6. A method of manufacturing a semiconductor device including a pixel portion and

a driver circuit for the pixel portion on a same substrate, said method comprising the steps of:

forming a first n-channel thin film transistor in the pixel portion and a second n-channel thin film transistor in the driver circuit,

said first n-channel thin film transistor including:

a first active layer;

at least a first LDD region in the first active layer;

a first gate insulating film being formed between the first active layer and the substrate;

a first gate electrode being formed between the first gate insulating film and the substrate;

said second n-channel thin film transistor including:

a second active layer;

at least a second LDD region in the second active layer;

a second gate insulating film being formed between the second active layer and the substrate;

a second gate electrode being formed between the second gate insulating film and the substrate,

wherein the first LDD region of the first n-channel thin film transistor in the pixel portion is not overlapped with the first gate electrode,

wherein the second LDD region of the second n-channel thin film transistor in the driver circuit is overlapped with the second gate electrode,

wherein the first LDD region includes an n-type impurity at a first concentration while the second LDD region includes the n-type impurity at a second concentration,

wherein the second concentration is higher than the first concentration.

7. A method according to claim 6,

wherein the second concentration is two or more times higher than the first concentration while the second concentration does not exceed ten times the first concentration.

8. A method according to claim 6 further comprising the steps of:

forming an organic resin film on at least the first n-channel thin film transistor in the pixel portion;

forming a light shielding film on the organic resin film;

forming a dielectric film in contact with the light shielding film;

forming a pixel electrode being connected to the first n-channel thin film transistor in the pixel portion, a portion of said pixel electrode being overlapped with the light shielding film;

wherein a capacitor is formed of the light shielding film, a dielectric film and the portion of the pixel electrode.

9. A method according to claim 8,

wherein the light shielding film comprises at least a material selected from the group consisting of aluminum, tantalum and titanium, and

wherein the dielectric film comprises an oxide of the material.

10. A method according to claim 9,

wherein the dielectric film is formed through an anodic oxidation method.

11. A method according to claim 6,

wherein the semiconductor device includes one selected from the group consisting of a cellular phone, a video camera, a mobile computer, a goggle type display, a projector, a portable electronic book, a digital camera, a navigation system for vehicles, and a personal computer.

12. A semiconductor device comprising:

a pixel portion and a driver circuit for the pixel portion on a same substrate;

a first bottom gate type n-channel thin film transistor being formed in the pixel portion and including:

a first gate electrode on an insulating surface;

a first semiconductor island being formed over the first gate electrode having a first gate insulating film interposed therebetween, said first semiconductor island including a first source region, a first drain region, a first channel region, and a pair of first lightly doped drain (LDD) regions;

at least a CMOS circuit being formed in the driver circuit and including a second bottom gate type n-channel thin film transistor and a bottom gate type p-channel thin film transistor;

said second bottom gate type n-channel thin film transistor including:

a second gate electrode on the insulating surface;

a second semiconductor island being formed over the second gate electrode having a second gate insulating film interposed therebetween, said second semiconductor island including a second source region, a second drain region, a second channel region, and a pair of second LDD regions;

said bottom gate type p-channel thin film transistor including:

a third gate electrode being formed on the insulating surface;

a third semiconductor island being formed over the third gate electrode having a third gate insulating film interposed therebetween, said third semiconductor island including a third source region, a third drain region, and a third channel region,

wherein each of the first LDD regions of the first bottom gate type n-channel thin film transistor in the pixel portion is not overlapped with the first gate electrode.

wherein each of the second LDD regions of the second bottom gate type n-channel thin film transistor in the driver circuit is overlapped with the second gate electrode,

wherein each of the first LDD regions includes an n-type impurity at a first concentration while each of the second LDD regions includes the n-type impurity at a second concentration,

wherein the second concentration is higher than the first concentration.

13. A device according to claim 12,

wherein the second concentration is two or more times higher than the first concentration while the second concentration does not exceed ten times the first concentration.

14. A device according to claim 12 further comprising:

an organic resin film being formed on at least the first bottom gate type n-channel thin film transistor in the pixel portion;

a light shielding film being formed on the organic resin film;

a dielectric film being formed in contact with the light shielding film;

a pixel electrode being connected to the first bottom gate type n-channel thin film transistor in the pixel portion, a portion of said pixel electrode being overlapped with the light shielding film;

wherein a capacitor is formed of the light shielding film, a dielectric film and the portion of the pixel electrode.

15. A device according to claim 14,

wherein the light shielding film comprises at least a material selected from the group consisting of aluminum, tantalum and titanium, and

wherein the dielectric film comprises an oxide of the material.

16. A device according to claim 12,

wherein the semiconductor device includes one selected from the group

consisting of a cellular phone, a video camera, a mobile computer, a goggle type display, a projector, a portable electronic book, a digital camera, a navigation system for vehicles, and a personal computer.

17. A device according to claim 12,

wherein the organic resin film comprises at least a material selected from the group consisting of polyimide, acrylic resin, polyamide, polyimideamide, BCB (benzocyclobutene).

18. A device according to claim 12,

wherein each of the second LDD regions has a length in a range of 0.5-3.0 μm, preferably 1.0 to 1.5 μm, in a channel length direction while each of the first LDD regions has a length in a range of 0.5 to 3.5 μm, typically 1.5 to 2.5 μm in the channel length direction.

19. A device according to claim 13,

wherein the first concentration is in a range of 1×10^{17} to 2.5×10^{18} cm^{-3}, while the second concentration is in a range of 2×10^{17} to 5×10^{18} cm^{-3}.

20. A device according to claim 12,

wherein the n-type impurity comprises phosphorus.